THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

VOL. VI. NO. 41. CLEVELAND, O., OCTOBER 9, 1884. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND.

The new revenue cutter Commodore Perry arrived at this port on Monday.

The work of laying the keel of the new iron steamship at the Globe shipyard is completed and she will soon begin to take shape.

V. D. Nickerson has just completed a fine pastel painting of the tug O. Wilcox. Mr. Nickerson has an artistic way of working in the mosaic lights that makes his pictures very attractive.

The propeller N. K. Fairbanks and tow Thomas P. Sheldon, caught in a gale recently on Lake Superior and compelled to put back to Summer Island, both arrived at this port on Monday in good condition.

The steam tug Mystic of Sandusky which was libeled by Phillip Minch and other owners of the steambarge John N. Glidden, for damages because of her negligence in allowing the Glidden to get aground in Sandusky harbor on the 20th of September, has been bonded and released.

Captain R. Greenhalgh's steam scow Eclipse went on the beach at the foot of Wilson avenue Monday under a stiff northeast breeze, her anchors failing to hold. Captain Todd swam ashore and telephoned to the Central Tug Office for a tug, and the Mary Virginia and James Amadeus, with the life saving crew, went to her rescue. The life savers carried a line to the scow and the tugs soon had her off without damage.

The little schooner Bertie Crowell, owned by W. E. Ransom, Esq., of this city, went ashore at Point Marblehead yesterday and is a total loss. She is being stripped. The Bertie Crowell was built at Sandusky and was a very staunch little boat. She measured 20 tons and was valued at $1000; no insurance. Captain E. T. Whitney of Geneva was sailing her. The crews were taken off by Captain Clemons and his life savers.

The owners of the schooner John Martin, of this port, were in receipt of a telegram saying that she had gone ashore at Duluth, that she was about a foot out, and that to save her from further possible damage she had been scuttled. The Martin is the tow of the propeller Selah Chamberlain, reported within the last day or two as having slight trouble in a storm at Port Arthur. The two vessels had left the latter port to go to Duluth to load grain. On arriving at Duluth the Martin missed getting in at the pier and finally drifted ashore, where her master, to save her, scuttled her as above stated. Later advices say that the Chamberlain succeeded in getting her off.

The owners of the Cleveland yacht fleet for some reason thing that the basin inclosed by the breakwater is quite a safe place to moor their boats, but no storm occurs at this port that does not wreck one or more of the little craft. Such was the case yesterday during the northeast gale, which lasted a number of hours. The Sappho formerly the Gipsey and Kittie Welsh were dashed ashore and the Sappho was pounded to pieces. The life savers, under command of Captain Goodwin, succeeded in towing the Welsh to a soft spot in the sand where she could rest easily until the gale was over. They stripped and saved the rigging of the Sappho. While being engaged in this timely work the life saver's boat filled and swamped twice. The Sappho was owned by Mr. M. Corrigan and valued at $500.

Sailor men desire to know why a light was not set and burning at the east end of the breakwater last night.

The schooners Constitution and VanValkenburg put in here yesterday, some of their sails having been blown out during the gale yesterday.

CHICAGO.

Special to the Marine Record.

The schooner Julia B. Merrill was libeled Saturday, at Chicago, by Thomas Breen, who wants $1,010 for damages alleged to have been sustained while at work on the vessel. The claim will be decided in court.

The United States attorney at Chicago has libeled the schooner Two Fannies, claiming $200 damages for a breakwater crib destroyed August 14th, by being run into by that vessel.

The propeller Roanoke, of the old Commercial Line, was sold on Monday. The Chicago Tribune, speaking of it says: "Owing to the liberal advertising given the sale of the propeller Roanoke, there were three persons present. These consited of the auctioneer, the ship-keeper and one bidder. The latter represented the owner of the boat, Mrs. Hamilton. The sale is alleged to have been made on the foreclosure of a mortgage amounting to $8,000, made in favor of James L. Beckwith. The mortgage had been previously obtained by Mrs. Hamilton, and her representative bid the boat in at $5,000.

The steam yacht Tillie M. built by J. Martel for Captain Sam Moore arrived here from Saugatuck Monday night; she is prodounced a great success and will go to New Orleans for a winter trip.

Mr. Bruce Miller of the firm of Miller Brothers returned on Saturday from a six weeks vacation in Dakota and other ports where he had been for the benefit of his health and we are pleased to state that he is looking and feeling much better for the trip.

Dredging is going on in the draw of North Halstead street bridge, where the steamship John B. Lyon went aground and failed to get through a short time ago, causing great expense and delay to the Lyon and to the passengers who were prevented from getting across the bridge.

A severe northeast gale prevailed yesterday, and many vessels have been riding out the sterm off the harbor waiting opportunity to enter. As the schooners Tempest and Irondale were being towed in the Tempest's line parted and she came into collision with the Irondale. Both vessels were damaged to the amount of $2,000, the Tempest losing her mizzenmast and had her stern stove in.

The schooner Evaline got a new mizzen sail and gaff last trip.

A very large fleet of vessels have been on the lumber market this week, but sales have been slow.

The schooner Emma C. Hutchinson last week lost her jibboom near Indiana street bridge through the breaking of her stern line.

The life saving stations of the eleventh district have been supplied with double-barreled pumps, for the purpose of aiding leaky craft, and Inspector Rogers is now engaged in fitting his territory out with aneroid barometers, handsomely encased in polished oak. The placing of reliable barameters in life-saving stations is a move in the right direction of their greater efficiency, and should have been done long ago.

The steamship Oceanica brought along two Trout propeller wheels to Miller Brothers' shipyard for use, when required, by the Lehigh Valley steamships.

At Miller Brothers' drydock the steamer Lucille went in for ironing for winter service, the tug Parker to get a new end on her shaft, she steambarge John Otis had her wheel fixed, the schooner Flying Cloud had a leak stopped. T. W.

FRANKFORT.

Special to the Marine Record.

Barges Gratwick, Frayer and Marvin are in port loading lumber for Tonawanda.

The propeller Thos. C. Friant, that has run in opposition to the propeller I. M. Weston on the route between Frankfort and Manistee, has found it unprofitable and withdrawn and returned to her home port. Grand Haven. The Friant is a fine craft of nice model and good speed.

The walk to the lighthouse on south harbor pier of which 130 feet was carried away by the schooner Amsden colliding with it, is being repaired by the department.

I. W. Gaines has erected a staff on the roof of Weston's union telegraph office and removed the signal station there.

Vessel men complain very much, saying it is the worst time in their recollection, nothing to carry and starvation rates when there is an occasional cargo. C. B.

KENOSHA.

The Chicago tug Commodore picked up a clinker built skiff, sixteen feet long, named the Siren, between here and Waukegan, ten miles off land. She was bottom up and all sails set. It is not known where she belongs or if any one was drowned from her.

CHEBOYGAN.

The schooner Havana sprung aleak coming through from Escanaba recently and her crew were kept at the pumps constantly.

LUDINGTON.

Captain Broadtent, keeper of the Ludington life saving station, has for personal reasons handed in his resignation. It was, in a manner, forced upon him, and he did not want to do it. Masters of vessels trading from Ludington all desire Captain Broadbent to remain in his present position, and will do what they can to induce him to reconsider his resignation.

WAUKEGON.

The sailboat Siren found capsized with sails set, by Captain Ryan of the tug Commodore fourteen miles north of this port, is owned here by William Watrous, and it is thought she was taken by a prisoner who escaped jail here Sunday night.

POINT MARBLEHEAD.

The scow O. M. Keys was driven ashore at this port yesterday, near the life saving station, and close to the Bertie Crowell. Both are pounding heavily on the rocks and it is thought they will go pieces.

PORT HURON.

The lumber barges Johnson and Desota, of the Germania's tow, came in waterlogged yesterday. Johnson lost fifty to eighty thousand feet of her deck load and the Desota part of her load of shingles and lath. The W. B. Ogden, in tow of the propeller parted company off Forestville and has not yet arrived. Hugh Cascaden, mate on the barge Agnes, in tow of the Missouri, got his hands foul of the foresheet while jibbing the foresail off White Rock and was thrown overboard and lost. Captain Cowan, of the Agnes, says he must have been struck with the boom, as he was not seen again after dropping in the water some distance to the leeward of the vessel. Cascaden lives at St. Ignace, where he leaves a wife and four small children.

MILWAUKEE.

The propeller Blanchard, of the Union Steamboat Line, narrowly escaped destruction by fire here on the 4th inst. The crew were unloading coal oil when a barrel burst and caught fire from a lamp. The fire raged in the hold for a while, almost suffocating half a dozen men, and was extinguished with great difficulty. Five thousand barrels of oil were in the vessel and on the docks, and if it had caught the result would have been most appalling.

Canfield's new wrecking tug was launched at Manitowoc on Saturday. Her cost complete will be $18,000.

Murdock McCrea, mate of the propeller F. and P. M. No. 2, has been bound over for trial in the United States Court for an assault on Sidney Smith on the high sea.

W. H. Wolf, owner of the steambarge Jim Sheriffs, has gone to Buffalo to investigate the cause which led to the giving out of the bulkhead in the holds of the Sheriffs at Buffalo on Saturday last, resulting in the smothering of a man. Actions for damages have been threatened against the owners of the Sheriffs.

A heavy northerly gale prevailed yesterday, the wind reaching thirty-six miles an hour. The passenger steamer Muskegon, from Chicago, had a narrow escape from foundering. Six miles this side of Racine the heavy seas broke in her gangway and bulwarks between decks, and two feet of water settled on her main deck. She was turned completely around, but succeeded in making Racine. Her cargo is badly damaged. Her passengers came here by rail.

The passenger steamer Douglass is ashore at Saugatuck, Mich. Her passengers, fifteen in number, were landed with small boats, and her crew is still aboard. She is a new boat, built last year, and valued at $20,000.

The schooner Chandler J. Wells, bound for Escanaba to load ore for Cleveland, broke adrift from the steambarge Keystone last night off Sheboygan, and attempted to make this port. She missed the piers and was being carried onto the beach, when her anchor was dropped. She lay close onto the beach all day. The life saving crew this evening ran a line to a tug and she was brought into the harbor.

BUFFALO.

The demand for tonnage for Lake Michigan was light and coal was in scant supply. New stock will begin to come in Thursday. The schooner Itasca was placed for a small cargo to Milwaukee at 70c and the Homer for Chicago at 60c. The Mineral State goes to Green Bay at 60c. It was impossible to get an any advance to Chicago. There is no doubt, however, that by the end of the week there will be some improvements in freight.

The damage caused by the recent fire on the propeller Potomac has been fixed by the surveyers at $3,000.

It has been decided by her owners not to place the steambarge C. J. Kershaw in commission again this season. Her wrecked engine will be replaced at this port, Cleveland or Detroit, as may be to the best advantage in the matter of expenses.

The new steel steamship Albany, of the Western Transit Line, arrived Monday night on her first down trip from Chicago with a cargo of about 2,400 tons. Her time from Milwaukee to this port was a little less than three days. Her engines worked well and she was not troubled with heating. One of the valves of her air-pump gave out on Monday evening, which delayed her a little.

MARITIME LAW.

Reported for the Marine Record.

LIEN ALLOWED ON FULL AMOUNT OF FREIGHT CARRIED—DEMURRAGE—OUTSIDE HELP.

In the District Court of the United States for the Northern District of Ohio.

Laban Fortier vs. 500,000 feet of lumber, etc. Diamond Match Company, claimant. } No. 1,849. In Admiralty.

Earl Bill, the commissioner to whom this cause was, by order of said court, referred, submits the following report:

Said commissioner has been attended by the proctors of the respective parties at sundry times, and the testimony of sundry witnesses has been taken and reduced to writing by and before him, which, together with the testimony of other witnesses, whose depositions are on file in this cause, has been presented by counsel, together with their arguments thereupon.

The parties, by their counsel, having agreed that the depositions of witnesses taken and filed in the two causes pending in this court, of Laban B. Fortier vs. 500,000 feet of lumber, Diamond Match Company, claimant, and Laban B. Fortier and Alfred Mayer vs. the same defendant and the same claimant might be used and considered together in both of said causes; so far as the same were in their nature applicable, they were so used and considered.

After due and careful consideration of all of said testimony and the arguments of counsel thereupon, the undersigned finds the following facts, with his legal conclusions thereon in this cause:

In the spring of the year 1883, one W. W. Tyler, of the city of Buffalo, N.Y., entered into an arrangement with libelant, of the same place, who was then the owner of the barge Hamilton J. Mills, and with Alfred Mayer and said Fortier, who were joint owners of the barge Walter A. Sherman, for the transportation of a cargo, by each of said barges, of pine lumber from the port of Ontonagon, Mich., to the port of Cleveland, Ohio, at and for the freight of $3 per thousand feet, the lumber to be delivered on the rail of said barges at said port of Ontonagon. Said arrangement, or contract of affreightment was verbal and not reduced to writing by the parties, and was the subject of conversations by and between libellant Fortier and Mayer, his company owner of the barge Sherman, with said Tyler, and also by said Fortier with one M. J. Galvin, captain of the steam-barge Alpena, of which he was owner of one-third, and in which said Tyler also owned an interest of one-third; said Tyler having referred the owners of said barges Mills and Sherman to said Galvin, as one who was authorized to act as his representative in that behalf. In the course of these several interviews, which resulted in an engagement of these two vessels to proceed to Ontonagon and there ship and transport cargoes of lumber thence to Cleveland, the capacity of said vessels, the depth of water they would require to float full cargoes and the terms on which the service was to be performed were discussed, and such representations were made by said Tyler and by his representative, Galvin, as fairly led the owners of said barges to the belief that at the date of their arrival they would find sufficient depth of water in the harbor at Ontonagon to float cargoes fully up to their capacity, as to which said Tyler and Galvin were fully informed. By the terms of said contract the lumber was to be delivered by the shipper on the rail of said vessels, instead of compelling them to take it from the piles in the yard of the shipper, and said Tyler was informed that said barges had each a capacity for the carriage of seven hundred and six thousand feet of Georgian Bay lumber, that the depth of water they would each require to float full cargoes would be from twelve feet to twelve feet six inches.

It also appears that some contract or arrangement had, prior to that time, been entered into by and between said Tyler and claimant for the transportation, by Tyler, of the company's lumber at Ontonagon to ports on Lake Erie, of which, however, libelants were not informed, and continued ignorant until the arrival of their vessels at Cleveland.

The masters of said barges thereupon proceeded in execution of said contract of affreightment, first to the port of Duluth, Lake Superior, with cargoes of coal, and after the unlading thereof, to the said port of Ontonagon to receive their said cargoes of lumber, and were there met and recognized, with their respective vessels, by one Lucius S. Benton, Superintendent of the Diamond Match Company, claimant in this cause, under whose direction the work of loading said barges was commenced June 14, 1883, and thence proceeded with, evidently in pursuance of some understanding that it was in execution of a previous contract for the transportation of the company's lumber from Ontonagon to ports on Lake Erie, and that said barges had been employed by said Tyler for that purpose. Both of said barges lay alongside of the dock of the Diamond Match Company, with their sterns up the stream, while receiving their respective cargoes, the Sherman lying above the Mills, but in close proximity; but before the lading was completed, on Monday, the 18th of June, in the afternoon by direction of said Benton, the Mills was hauled up alongside of and outside of the Sherman to which she was made fast, to give opportunity to have dredged out a bar which existed in front of the Mills. On Saturday, the 16th of June, it rained, and the loading was thereby interfered with and suspended. The rain so continued as to cause a freshet or rise of water in the river, and no more lumber was laden on the Mills, and but little more on the Sherman. But, for the purpose of bringing the last named vessel into nearer proximity with certain lumber piles on the dock, with a view to making additions to her cargo, it became necessary to have the fastenings by which the two barges were held together so far slackened as to allow the Sherman to drop down the stream a few feet. A strong line had been passed from the Mills, near her stern, to a pile of the dock situate at a point so far aft of the Mills as to form an obtuse angle with her side and well calculated to prevent her from being swung out into the stream when the line by which the two vessels were held together should be slackened to allow the Sherman to move down. As this last named manœuver was about to be performed, on Friday morning, the 19th, the pressure upon the line attached to the pile was likely to be so great, owing to the strong current, that another smaller line was run from the breast of the Mills, across the Sherman, to a pile of the dock. As the Sherman, after loosening the lines by which the Mills had been fastened to her, moved down, say about ten or fifteen feet, the force of the current was so great as to cause the stern of the Mills to commence swinging out in the stream, causing a great strain upon the two lines by which she was held to the dock, to relieve which still another line was passed from the midship timber head of the Mills to the Sherman's foremast, to which it was made fast. But, notwithstanding all the above recited precautionary manœuvers, the force and direction of the current were such as to part the last named line and carry away the piles to which the other two were fastened, and the Mills was swung out and across the stream until the course of her stem down the stream was arrested by her going aground, and it was gradually swung farther down as the sand which obstructed her gave way. Her position thus athwart the channel caused a bar to be formed below her which required removal by dredging before either vessel could move down the river with their uncompleted cargoes. Efforts were then made to clear and deepen the channel by dredging and otherwise, which were so far successful that the Mills was returned to the channel on Thursday afternoon, the 21st, and both barges, an additional quantity of lumber having in the meantime been loaded on the Sherman, were towed out to the outer pier with great difficulty, on account of the shallowness of the water in the river, by reason whereof they failed to reach the mouth of of the river where the depth was sufficient for them to proceed on their voyage to Cleveland, until Monday, the 25th of June. On the passage down the river the barges grounded in several places, making it necessary to employ steam power, the extra expense for towing out incurred by the barge Mills being the sum of twenty dollars. When the master of the Mills made demand for more lumber to be put on board his vessel his demand was refused by the claimant's superintendent. Application was likewise made to him to lighter down the river lumber for the completion of larger cargoes, which was also refused, for the avowed reason that it would be afterward taken as a precedent; though subsequently about 100,000 feet of the Mill's cargo was taken off and lightered down to deep water. Said barges, having reached the lake and having received their several bills of lading from the Diamond Match Company, the claimant of their cargoes and consignor, proceeded to the port of Cleveland, on Lake Erie, that being the port of destination named in the bills of lading, where they arrived on Sunday, the 1st of July, and reported to the agents of the claimants named in the bill of lading as consignees. On Tuesday, the 3d of July the unlading commenced, nothing having been done on Monday, the 2d, for the reason that the ultimate destination of the lumber was Akron, Ohio, via the canal, and the consignee desiring to have it delivered directly into canal boats, no boats could be had for that purpose until Tuesday.

It is further found that the depth of water in the harbor of Ontonagon at the time said barges went there for their cargoes, as aforesaid, was less than twelve feet and was insufficient to float said barges when loaded to their full capacity with the lumber with which they were so partially laden, or even with their said partial loads, and that such deficiency of depth was the principal cause of the delay in lading the said barge Sherman. That it was the cause of the necessity of the removal of said barge Mills from a position next below the Sherman to one alongside of her, so as to allow such dredging to be done in the channel at or near the Mill's berth as would enable said barges to pass down the river, even with their partial loads; that the position in which said barges were thus placed was rendered perilous by reason of the sudden rise of water in the river and the accelerated current consequent upon it; that the manœuver by which the Sherman was dropped down, resulting in the swinging off of the Mills, was the mutual act of the representatives of the parties to this suit and it is but reasonable to conclude that it would have been successful but for the imperfection of claimant's dock, whereby the piles to which the stern line of the Mills had been fastened by a good and sufficient line, and an adjacent portion of the dock, were carried away, for which result libelants ought not to be held responsible; that the delay thus caused, and the difficulty of getting said barges from the dock where they had been laden to the mouth of the river into water of sufficient depth to float them, was for a period of seven days, say from and including Monday, the 18th, to and including Sunday the 24th of June; that the true and reasonable time to be allowed for loading said vessels with the amount of lumber actually put on board is evidenced by the fact that the Mills received none after Saturday, the 16th, to-wit three days, (See testimony of Benton, Superintendent, page 10); that the demurrage suffered by libelant by reason of the delay of seven days, as aforesaid and by the delay of one day at Cleveland in the unloading is the sum of fifty dollars per day, amounting to the sum of $400; that said lumber was not delivered to said barges on their rail, as stipulated and agreed in and by said contract of affreightment whereby an expense was necessarily incurred by libelant amounting to $82.25; that the amount of lumber delivered and laden on each of said barges by claimant, as specified in each of their several bills of lading and as admitted by its answers was "five hundred thousand feet, more or less." Claimant has presented to the undersigned motions for leave to amend said answers withdrawing its said admissions and substituting averments that only four hundred and seventy thousand feet were laden upon and transported by each of said barges. The undersigned having doubts of his authority to grant said motions, nevertheless has permitted testimony to be given respecting said quantity, as though such amendment had been made, and submits the same, together with the motions aforesaid, to the court for such action as it may deem proper in the premises. But the undersigned finds that granting the testimony thus given by claimant to be legally subjected to his consideration, he deems it insufficient to overcome the admission in and by the claimant's bill of lading.

It is also found that of such lumber as was delivered to and transported by libelants under the aforesaid contract, the same being substantially green and heavy, six hundred thousand feet would have constituted a full cargo for either of said barges; but to have given either of them such full loads would have made it impossible to have brought them down the river until the channel had received much additional dredging, which would have caused additional delay. It is, therefore, further found that the libelant was entitled, by the terms of said contract of affreightment, to receive freight on six hundred thousand feet of lumber at the rate of $3 per thousand feet, amounting to the sum of $1,800, in case he performed said contract on his part in good faith so far as he might do but for the breach thereof on the part of the other party thereto. In other words, said contract was substantially to the effect that said Tyler employed said barges, respectively, to proceed to the port of Ontonagon, and there to receive on board cargoes equal in amount to their respective capacities, shown to be at least six hundred thousand feet of lumber, of which Tyler had knowledge, and transport them to the port of Cleveland at and for the rate of $3 per thousand, amounting to said sum of $1,800, and substantially guaranteed a sufficient depth of water at the port of Ontonagon to float the same into Lake Superior; and libelant, on his part, agreed and did perform said service as far as possible under the aforesaid conditions and stipulations. If, by reason of failure, on the part of Tyler, to make such conditions and stipulations good, whereby the libelant was deprived of the substantial benefits of the contract, and without fault on the part of libelant or his agents, as it is found the fact to be, I do not doubt the liability of Tyler for any loss sustained by libelant, by reason of such failure.

We now come to the consideration of the question of the liability, and its extent, of the property seized and held in this cause for the defaults on the part of Tyler. It sufficiently appears, from the testimony, that on the arrival of the barges at the port of Ontonagon they were at once recognized by the agent of the Diamond Match Comny, claimant of the lumber laden on the libelants' barges, as having presented themselves to be laden with its lumber, pursuant to some contract or arrangement. What contract was it? The conduct of Benton, the agent, clearly shows it to have been the Tyler contract with libelants. When some complaints were made by the master of the Mills, the reply of Benton was, "You will have to settle that with Tyler, when you get to Buffalo." On the other hand libelant was not informed, when the contract was entered into, that the lumber in question was not the property of Tyler; in fact the ownership of claimant came to his knowledg after the arrival of his vessel in Cleveland.

It is evident, therefore, that claimant recognized and availed itself of the benefits of the Tyler contract, and thus so far made itself a party to it as to render its property thus placed on board under its provisions subject and liable to the consequences of breaches on Tyler's part, resulting in loss and damage to libelant, while endeavoring in good faith to perform the duties incumbent on him under it, that is to say, when claimant adopted and availed itself of the benefits of the contract, it did so *cum onere*, and libelant is entitled to have a lien upon the property laden on board his vessel by it to that end, as his ship would have been subject to a lien for refusing, without sufficient cause, to take and transport a full cargo, after having received a partial one. For the conclusions of law on the question of lien on the cargo for the whole amount of the hire of the ship so arrived at, by a simple arithmetical computation, the undersigned refers to 5th Wallace, 494; 19 Howard, 169; 1 Parsons on S. & A., 289; 301 Desty's S. & A., § 285.

The undersigned, therefore, pronounces in favor of libelant upon the matter in his said libel contained for the several sums stated below, to-wit:

For freight on 600,000 feet of lumber at $3.00 per 1000	$1,800 00	
Less amount paid by claimant	682 31	
Balance due		1,117 69
Amount paid by claimant for extra labor in loading		82 25
Seven days delay of barge at Ontonagon beyond reasonable time at $50.00 per day		350 00
One day's delay at Cleveland in unloading beyond a reasonable time		50 00
Amount paid by libelant for extra towing at Ontonagon by reason of the shallowness of the water in the river		20 00
Total		$1,619 94

That libelant ought to have his decree for said sum of sixteen hundred and nineteen dollars and ninty cents, with interest thereon from the sixth day of July, 1882, until the entry of said decree, and the costs of this suit; and that he ought to have his lien therefor upon the said 500,000 feet of lumber seized by virtue of the *mesne* process, issued in this cause, as security for the payment of said decree.

All which is respectfully submitted,

EARL BILL, Commissioner.

BUFFALO HARBOR.

The engineer in charge of the government work at this port has made his report to the chief of engineers at Washington. As matter of interest to nearly all people of this city it is herewith given:

"The first appropriation for the improvement of this harbor was made in 1826. The scheme of improvement, as modified at various times, provided for the construction of a north and of a south pier at the mouth of Buffalo creek, a masonry sea-wall running south from the south pier, and a breakwater a little less than a half-mile distant from, and in front of the Buffalo lighthouse, its long arm running parallel with the general shore line in a direction nearly northwest and southeast. The north and south piers were finished long ago.

Proposals were asked for extending the breakwater southward 800 feet, in water varying from 23 to 28 feet in depth, by means of 16 cribs, each 50 by 36 feet, the whole surmounted by a continuous super-structure 12 feet high for the outer one-third of its width and five feet for the inner or harbor two-thirds. Work was commenced under this contract, and has been energetically prosecuted to good advantage. Up to the close of the fiscal year, five cribs of twenty-five courses had been built to full height and sunk in place on the extension line, upon the stone foundation prepared for them. Two other cribs have been built, each to the height of six courses, and the lower course of the superstructure on the lake side has been commenced and carried from crib 1 to crib 5 of those sunk. It was found necessary, in making repairs, to place snubbing-posts along the breakwater at intervals of 100 feet. Up to last year vessels and rafts had been in the habit of attaching their lines to the deck plank, joists, cross timbers, etc., which did much damage to the structure, but which it was impossible to prevent or recover damages for. Last January occurred the heaviest gale which has been felt on Lake Erie since 1872. When the ice disappeared it was found that at 2,000 feet from the north end of the breakwater, and running 800 feet southward, the superstructure was so badly damaged as to require rebuilding from the water line up, on the harbor side, and from four feet above water line on the lake side. The new superstructure will be similar to that of the extension now under contract, viz.: 5 feet high for the inner 22 feet, and 12 feet high for the outer 12 feet. In his annual report upon this harbor for 1882 Major McFarland asked for $60,000 to rebuild the northern 1,000 feet of the old superstructure of the breakwater, and the opinion was expressed that the rebuilding should not be delayed longer than the summer of 1884. The storm of January damaged the breakwater so severely that now the northern 2,000 feet of superstructure should be rebuilt in a similar manner to that now under contract. Upon opening the work now under contract, it was found to be unnecessary to rebuild below 4 feet above the water line on the outer half of the work. Major McFarland's estimate of $60 per running foot may be reduced to $33 per foot, and $66,000 is asked for the purpose of rebuilding the above mentioned 2,000 feet. The part of the superstructure is from 12 to 15 years old; the harbor face appears to be entirely rotten, so that a breach may occur with the next heavy sea, endangering the lighthouse pier and the harbor entrance. This total length of the breakwater, as projected, but subsequently modified, owing to a correction in the position of the shore end of the shore arm, was:

Main or detached breakwater of crib work	7,600 feet
Shore arm of crib work	3,250 feet
Pile pier of shore arm	1,000 feet
Total length	11,850 feet

Of which there has been built:

Main breakwater completed to June 30, 1884.	4,891 feet
Main breakwater under contract	800 feet
Pile pier completed to June 30	870 feet
Total	6,561 feet
Still to be built	5,289 feet

Under the existing and future contracts no excavation will be necessary, the natural bottom of the lake being hard enough to sustain the work.

There is an increased demand for wharf room in Buffalo, owing to the large coal trade which has centered here during the past two years, making an early completion of the breakwater a necessity. When constructed, the breakwater will cover about 8,000 feet of available wharf room. As there is now no dredging to delay the work, there is practically no limit to the amount which can be done in a year. Two hundred and forty thousand dollars is asked for the extension of the breakwater, which at present prices, would complete the main portions.

THE SOUTH, OR LIGHTHOUSE PIER

The work of rebuilding the superstructure over the entire length of the wooden extension of this pier has been completed. The length rebuilt was 334 feet 6 inches, at a cost of $5,578. The stone work of this pier is in good condition, but the pile protection along the channel face is rotten and badly damaged. It should be repaired as soon as possible. The estimated cost of removing the old work and putting in new is $15,000, which amount is asked for the next year.

THE PILE OR CATCH SAND PIER.

The stone filling has settled for the entire length of the pier, and a large number of deck plank are off. Two thousand dollars are asked for repairs.

RECAPITULATION OF ESTIMATES FOR 1885.

Breakwater extensions	$240,000
Breakwater repairs	66 000
South pier repairs	15,000
Pile pier repairs	2,000
Total	$323,000

The total amount of money appropriated for this harbor up to the close of this fiscal year has been $1,661,440.41, of which amount there has been expended $1,487,352.41. Amount required for completion of the existing project, $1,330,000.

No work has been done during the year on Niagara river, and no appropriation is asked for at present. The right bank of the river, between Youngstown and Fort Niagara, is cutting very badly and washes away every spring. A survey will be made, and an estimate of the cost of protecting the bank submitted."—*Courier.*

THE BARGE TRANSPORT.

Among the craft trading at this port there are few probably among the lumber carriers which made a better showing than the barge Transport, in command of Captain Glass. She had already brought in ten cargoes of lumber since about the first of last May, aggregating 2,735,000 feet, and has taken up seven cargoes of coal, amounting to 2,000 tons, and one cargo of block stone. This makes a good showing for a craft of her tonnage. Captain Carson Glass is a big man, but he is also a 'big schemer.' His packet, the Transport, arrived in the river Sunday night, was towed to the East Saginaw Gas Light Works, where 300 tons of coal were taken out on Monday, when he was towed to Green's mill, began work at 7 o'clock yesterday morning, and finished it at 5 o'clock last night, and passed down the river and out with the propeller Otego.—*Saginaw Courier.*

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Dimensions of hull 65 feet over all, 16 feet beam, 8 feet hold, and measures 46 tons with 7 feet draft; can be made 6 feet draft. The engine, 18x20, is in first-class condition, with all new brasses, new rings in cylinder and turns a six-foot wheel, which was new last season. The boiler is one year old, is large enough to burn wood or coal and is allowed 100 pounds of steam. Price $4,500, and must be sold inside of thirty days. Address MARINE RECORD OFFICE.

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Commencing Sunday, May 11, 1884, at 12 o'clock noon the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper:

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	°1 10 A M	°12 05 A M
No 8, N Y, B & A Express	°6 35 A M	°7 00 A M
No 26, Elyria Accommodation	†8 05 A M	
No 35, Buffalo Ac'm via Sandusky	†10 35 A M	†10 50 A M
No 35, Toledo Accom via Norwalk	†10 35 A M	†10 50 A M
No 12, N Y & B Fast Express	°1 55 P M	°2 25 P M
No 14, Special N Y & Bos Expres		5 00 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 42 P M	
No 26, Conneaut Accommodation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	°11 55 A M	°12 05 A M
No 23, Mich Express via Sandusky	°2 15 A M	°2 35 A M
No 3, Chicago Express via "	‡6 05 A M	6 30 A M
No 25, Mich Accom Norwalk		†6 10 A M
No 21, Toledo Ex via Norwalk	†12 55 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	†12 15 P M	12 40 P M
No 9, Chi P c Fx via Norwalk	°6 06 P M	°6 30 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:30 a. m. and 1:45 p. m.; returning, leave Nottingham at 9:05 a. m. and 3:45 p. m.

Reference marks—° Daily, † daily, except Sunday, ‡ daily, except Monday.

For full information as to trains and connections apply at the new city ticket office, corner Seneca and St. Clair streets, Lake Shore block.

A PRIZE. Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All, of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address TRUE & Co., Augusta, Maine.

BEE LINE

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, June 8, 1884, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows. CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

	Depart.
No. 3, Columbus, Cincinnati & Ind Ex	7:00 A M
No. 23, Galion & Wheeling Express	6:40 A M
No. 9, Col., Cin., Ind & St. Louis Ex	°6:40 P M
No. 5, Col Cin., Ind. & St. Louis Express	°12 35 P M
No. 27, Galion & C L & W. Acc	4:00 P M
No. 29, Massillon & Ulrichsville Ex	5.00 P M
	Arrive.
No. 8, Col, Cin, Ind. & St. Louis Exp	°6:40 A M
No. 20, Ulricsville & Massillon Ex	9:00 A M
No. 2, Col. Cin. & Indianapolis Express	9:50 P M
No. 14, St. Louis, Ind., Cin. & Col. Ex	°4:45 P M
No. 22, Galion Acc	10:00 A M
No. 26, Wheeling Accom	4:30 P M
No. 4, Col., Cin & N. Y. Express	1:15 A M

Trains marked ° daily, all other trains daily except Sunday

E. B. THOMAS, General Manager. O. B. SKINNER, Traffic Manager.

A. J. SMITH, General Passenger Agent. CLEVELAND, OHIO.

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Central or Ninetieth Meridien time, 33 minutes slower than Cleveland city time.

Until further notice trains will leave from the new Central Depot, South Water street and Viaduct as follows:

6.50 a. m. ATLANTIC EXPRESS—(Daily) Pullman sleeping and hotel coaches from Leavittsburgh 8:35 a. m. to New York, Albany and Boston without change. Arrive at Meadville at 10:40 a. m. (dinner) Franklin at 12:08 p. m, Oil City 12:30 p. m, Corry 12.35 p. m, Jamestown (Lake Chautauqua) 1.35 p. m, Buffalo 5:50 p. m. Rochester 8:20 p. m.; Hornellsville 6:00 p m. [supper]; Corning 7:25 p. m. Elmira 8:05 p m. Binghanton 10:05 p. m., Albany 5:00 a. m. Boston 1:45 p. m.; arriving at New York 6:15 a.m.

2:20 p. m. LIMITED EXPRESS—Through Pullman sleeping coach from Cleveland to New York. Arrives at Meadville at 6:30 p. m, Jamestown 8:47 p. m., Salamanca 9:45 p. m., New York 10:10 a. m.

11:00 p. m. NIGHT EXPRESS—(Daily except Sunday) Seeping coach from Cleveland Hornellsville. Arrive at Youngstown at 1:50 a. m., Meadville 3:25 a. m., Corry 4:59 a. m. Jamestown 5,57 a. m, Buffalo 9:20 a. m., Rochester 12:58 p, m., Hornellsville, 11:00 a m, Corning 12:07 p m, Elmira 12:40 p. m., Binghampton 2:19 p m., New York 9:10 p m. Arrive at Pittsburgh 5:50 a. m., without change.

2:20 p. m. PITTSBURGH EXPRESS — Daily — Through without change, Parlor car attached. Arrives at Youngstown 5:00 p m., Pittsburg 8:02 p. m., Washington 7:09 a. m, Baltimore 8:19 a. m.

4:11 p. m. MAHONING ACOMMODATION — Stopping at all way stations, arriving at Youngstown 6:55 p. m., Sharon 8:01 p. m., Sharpesville 8:10 p. m.

6:50 a. m. PITTSBURGH EXPRESS — Daily — Through without change. Arrives at Youngstown 9.30 a. m., Sharon 10:30 a. m., Sharpsville 10:40 a. m., Pittsburgh 12 45 p. m., Returning, leaves Pittsburgh at 4:15 a. m., 7:45 a. m., 12:55 p. m., and 3:45 p m.

10 35 a m. YOUNGSTOWN AND PITTSBURGH ACOMMODATION—Stopping at all Way stations, arriving at Youngstown 1:40 p. m., Pittsburgh, 5.45 p. m.

Trains arrive at Cleveland, 6:15 a. m., 6:30 p. m., 10.20 a m; 1:05 p. m., and 9:45 p. m,

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At Chicago, passenger trains arrive at and leave from the Union Depot, Van Buren street.

Following is the time in effect June 1. 1884, and until further notice:

GOING EAST.

Lv.	Chicago	7.50 a. m.		
Arr.	Valparaiso	9.45 "		
"	Fort Wayne.	1.30 p. m.		
"	New Haven	2.05 "		
"	West Leipsic	3.56 "		
"	Arcadia	4.49 "		
"	Fostoria	5.00 "		
"	Green Springs	5.45 "		
"	Bellevue	6.10 "		
Lv.	Bellevue	6.20 "	7.55 a. m.	
Ar.	Lorain	7.50 "	9.16 "	Accom.
Arr	Cleveland	9.02 "	10.22 "	
Lv.	Cleveland		10.27 "	3.52 p. m
Arr	Painesville		11.33 "	5.05
"	Ashtabula		12 25 p. m.	6.03
"	Conneaut		12.50 "	6.30 "
"	Erie		2.09 "	
"	Dunkirk		3.47 "	
"	Buffalo		5.20 "	

GOING WEST.

Lv	Buffalo	9.50 a. m.	
Arr	Dunkirk	11.24 "	
"	Erie	1.23 p. m.	Leave
"	Conneaut	2.20 "	6.15a. m.
"	Ashtabula	2.51 "	6.46 "
"	Painesville	3.44 "	7 43 "
"	Cleveland	4.52 "	8.55 "
Lv	Cleveland	4.57 "	6.47 a. m.
Ar	Lorain	6 12 "	7.35 "
Arr	Bellevue	7.35 "	9.10 "
Lv	Bellevue		9.20 "
"	Green Springs		9.44 "
"	Fostoria		10.22 "
"	Arcadia		10 34 "
"	West Leipsic		11.30 "
"	New Haven		1 35 p. m.
"	Fort Wayne		1.50 "
"	Valpraiso		5.42 "
"	Chicago		7.50 "

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of ticket desired. Baggage checked to destination

For information, call on nearest agent of the Company, or address

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The Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building.]

A. A. POMEROY, Editor and Proprietor.

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CLEVELAND, OHIO, THURSDAY, OCTOBER 9.

THE NECESSITY OF TORCHES.

Some time since we had occasion to call attention to the statute requiring sail vessels to exhibit a torch to an approaching steamer. It may be true, the statute in question does not make it incumbent to display a torch unless the steamer is approaching some point or quarter of the sailing vessel, nevertheless, it is evident that the literal meaning of the law is that the precaution should be taken whenever there is the slightest danger of collision or mistake, and it should be so construed by sailing masters, especially as the trouble and expense is but nominal and a cause of action, in the event of a suit, would be much strengthened by the observance of this point. Should a schooner succeed in proving that her side lights were in position and burning, the fact that she omitted to show a torch would go very far toward losing a case at law, a point to the question being a recent collision case between a bark and tug with a tow, decision being rendered by Judge Benedict, Eastern District of New York, who ruled that, notwithstanding the bark showed by evidence that her lights were set and burning, the burden of proof was upon her to demonstrate that the collision was not caused by the neglect to show a torch, which she failed to do; the judge decided, therefore, that the collision was caused by the bark The fact that the lookout on the tug did not see the lights of the bark, which were placed in the mizzen instead of the forward rigging, in time to avoid collision, was also cited by Judge Benedict, who said: "I am aware that many vessels carry their lights aft and that reasons are given for preferring that location, but when on any vessels the side lights are placed aft the sails, I consider the vessel charged with the burden of showing clearly that the lights so placed would not be obstructed by the sails when set. The testimony in this case has not satisfied me that the side lights of the bark would not be obstructed by the clew of her sail when close hauled, owing to her side lights being placed upon her mizzen rigging"

It should be apparent to all that any measure of prudence for the prevention of collisions at sea can not but be on the side of economy. It is also patent that a small light cannot be as readily discerned as a large one, although some owners of small vessels, thinking, perhaps, that it is neccesary to keep all things in proportion, place small lights on their small vessels. Collision being as imminent to a small vessel as a large one, equal measures to avoid the calamity should be taken, and we advocate the large lights, which should be made standard and adopted by all vessels of whatever dimensions. In following the question of collision, which should command the attention of every person interested in shipping, we have in the last two numbers of the RECORD printed the rules of the department, the use of which is to assist the officer in charge of a vessel to decide promptly upon the action to be taken at a critical time, when there is but a moment to consider, and when any hesitation would perhaps be fatal to his ship, and likely with loss of life. In this connection we place before our readers, on another page, a number of diagrams, illustrating several critical situations, with the department rules to be followed in each case to prevent disaster.

A recent letter of Commander Gorringe on this subject contains suggestions worthy of being considered, which have been prompted by the Tallapoosa disaster. He shows that the red and green side lights now carried by vessels are frequently mistaken for one another, even by men who are not color blind, but that the position in which they are placed is such that in certain circumstances it is possible for a vessel to alter her course sixty degrees without giving any indication of the alteration by the appearance of her lights. In other words the present system of lights is miserably defective, as is shown by the fact that it has failed in hundreds of instances to prevent collisions. Commander Gorringe proposes, in the place of red and green side lights, that every vessel shall carry four range lights, two of which should be placed forward and two aft. Of the forward lights one should be a white light and the other a red light, the latter to be placed somewhat higher than the other and some distance aft of it. The after lights should be arranged in a similar manner, except that the red light should be lower than the white light. This arrangement would render it possible to ascertain from the appearance of a vessel's lights the course steered by her and the direction and degree of the slightest deviation from that course. It would also enable a steamer to avoid running directly into the stern of a slower vessel, where both are steering the same course, and no one on board the slower vessel has the forethought or opportunity to display a torch. One objection to this plan is the fact that most persons who are to any extent color blind are unable to see the red ray.

IT is said that the lake terminus of the Canadian Pacific railway will be removed from Port Arthur to Fort William on Thunder Bay. The company has secured frontage of about five miles on the Kaministiquia river, which will give ample room for docks. Two new elevators are being constructed, with a capacity of 2,000,000 bushels, and the Canadian government has dredges at work removing a serious impediment to navigation in the shape of a sandbar, which extends across the mouth of the river.

A GENTLEMAN of Minnesota has invented a combined high and low pressure boiler for steamboat purposes, designed to make large saving in the consumption of fuel. He has offered to build and fit up a steamboat to carry one hundred passengers, and place it at the disposal of the United States commissioner of the World's Exposition for Minnesota, for use at New Orleans during the continuance of the great show. The offer has been accepted and the boat will be on exhibition and also be used for excursion purposes.

SOME weeks ago we advanced an opinion that there would be a rupture between the cargo insurance companies, which recent events have upheld, and now come the marine underwriters, who declare that the condition of affairs at the present time is quite as bad as last season, which was ruinous for that interest. It is to be understood that in order to obtain business they will ignore the experience showered upon them during the fall of 1883.

CLEVELAND, Ohio, annually sends large amounts of money to buy Bibles for the Hottentots in Africa. However, this should not be mentioned in connection with the fact that a man was found on its streets last week dying from hunger, having eaten nothing for a week.—*Duluth Herald.*

[We do not believe that charity begins at home, but that it covers a multitude of sins.—ED.]

SAFETY YACHTS AND PROPELLER WHEELS.

Editor of the Marine Record:

I am glad to see that at least one of your correspondents has the good sense and the courage to rap the knuckles of that class of people who persist in the use of the term "three-and-after" for a three masted schooner. I suppose they would call a vessel of two masts a "two-and after," or a sloop a "one-and-after." This is simply nonsense, and comes with an ill grace from those who pretend to know anything of seamanship.

I see that the members of the "Keely" family are numerous. One has recently come to the light in Boston, under the name of Norcross, with a new ship, or model of one. This ship "is the acme of comfort." "She holds the waves in command and is their master." "She never rolls, she never pitches." The laws of hydro-dynamics are supended in her favor. "She cuts the waves with her plow." This was done for the children of Israel when passing the Red Sea. Verily we have a prophet among us. "She can not sink." "She can not upset." These excellent properties will do away with the necessity of underwriters and United States inspectors of steam vessels, for of what use would they be when our ships are "the acme of comfort and ocean steadiness." We are informed that this vessel "differs in all respects from all others ever used," and "she has her base of principles laid in known science, such as no others now built have." What a marvel of naval architecture this vessel must be. From the fact that this vessel is built upon "principles of known science, such as no others now built have," we infer that our naval architects, the world over, are laboring in dense ignorance of those "principles of known science" so conducive to safety. What a boon this benefactor offers to the public in the "plans and principles to build such vessels," simply for the asking. By all means, Mr. Editor, ask for them and publish them; for are not all our shipbuilders groping, in the darkness of ignorance, for want of light from those "known principles of science." But why did our prophet forget to tell us the name of this wonderful vessel in Boston harbor? See MARINE RECORD, October 2d.

I see, too, that another member of this wonderful family has appeared at New Orleans, under the name of Cordosa de los Rios with a new propeller wheel for vessels. He is about to reverse the laws of mechanics, and show us how to do, with a small wheel, the work at present allotted to large ones, forgetting that "the holding power," so to speak, of any wheel, depends on the amount of water taken hold of; and that this "holding power," or ability to afford a footing for the engine to work upon, varies as the cube of the diameter of the wheel. So the law of gravity has fixed a limit to the holding power of all wheels used as propellers. Again, he makes a sorry mistake in supposing that our large vessels are more trouble to get the needful holding power in their wheels than are our small vessels. So far is this from the fact that exactly the reverse prevails. Large vessels have no trouble at all in getting wheels of holding power sufficient to work off the power of their engine, while, as a rule, the wheels of the smaller class of propellers are too small in their diameter.

The reason of this will not be hard to understand when it is remembered that the chief resistance to be overcome in propelling vessels of good model is the surface, or water friction, and that with similar vessels this resistance varies as the square of any of the lined dimensions of vessels, as, say the length, or breadth, or draft of load line, while the available holding power of the wheel varies as the cube of those dimensions.

Again, there is another law concerning the holding power of wheels, or their ability to afford the needful resistance for their engines to work upon, that has been overlooked by Mr. Rios, and which can not be set aside till we can null the force of gravity, viz.: A unit of surface in the disc area of a large wheel affords more holding power, or resistance for the engine to work upon than does the same unit in the disc of a small wheel, and this advantage varies as the diameter of the wheel. To illustrate: Take a square foot, or say a circular foot, of area in the disc of a wheel 10 feet in diameter. This one foot of area affords ten times as much holding power for the engine to work upon as if it were in a wheel whose entire disc area was one foot, five times as much as if in a wheel two feet in diameter, and two times as much as if in a five-foot wheel. This law explains how it is possible for large wheels to work off such enormous power as some of them do. The steamer Alaska has worked off 11,000 indicated horse power with a wheel twenty-two feet in diameter, while an engine of 1,000 indicated horse power must have a wheel over eleven feet in diameter, to afford the requisite holding power. It also explains the reason why small wheels have failed to meet expectation when two or more of them have been used in the place of a large one. To illustrate: Suppose we have an engine requiring a single wheel about 7½ feet in diameter, but the depth of water available will not warrant so much diameter, then what will be the diameter of each of two equal wheels affording together the same amount of holding power? We have simply to divide the given diameter 7½ feet by the cube root of 2, which is 1.26, and we have the required diameter, thus:

7.5 ÷ 1.26 = 6 feet = required diameter.

And when it is remembered that the wheels under the quarter of the vessel take water from only one side, it would be safe to say that one seven-foot wheel behind the stern post would be worth more than the two six-foot wheels under the quarter of the vessel, so the cost is in the way. The idea of working off great power with a small wheel is a total mistake. The economic limit is found by taking the cube of the available depth of water, in feet, for the indicated horse power of the engine. Thus, on a five-foot draft of water we could use, with economy, only about 125 indicated horse power, though a much higher power can be worked off.

CHIP.

METALLIC PACKING.

The Katzenstein metallic packing has recently been placed on the fine new ocean SS. America, the new SS. Chateau Yquene and has been renewed on the SS. Servia, the old packing of the same make having been in constant use two years. This packing has also been placed on Captain Wilson's new lake steamers Kasota and George Spencer, and, from all reports gives good satisfaction. It has also been placed in the boxes of the new Worthington engine in the Cleveland water works. It has been used in the waterworks here for a number of years and the engineers say it stands service better than anything they have ever used. A set has recently been put into a Cummer engine, reports from which have not yet come to hand, but in regard to that in use for some years by the Standard Oil Works, Engineer Powell says, although the first cost is somewhat above that of ordinary packing, it has paid for itself two or three times over.

ON another page will be found an interesting admiralty case, Laban Fortier vs. 500,000 feet of lumber reported upon by Earl Bill, United States commissioner. The report contains many new and valuable points which are sustained by sound logic.

LIFE PRESERVERS.

WASHINGTON, D. C., Sept. 19.—Local, assistant and special inspectors of steam vessels are hereby notified that Wm. M. Heagerty, of New York, has been appointed an assistant inspector of steam vessels for the examination of life preservers, and has been specially charged with the duty of visiting places where life preservers are manufactured, for the purpose of personally examining such preservers previous to their sale or use upon steam vessels, and to place his official brand upon all such as shall be found to fully conform to the requirements of sec. 18, rule 3, reclassed rules and regulations, approved March 5, 1884 (Chas. J. Folger, secretary.)

Inspectors of steam vessels (domestic and foreign) are, therefore, directed not to accept or pass any life preservers of American manufacture hereafter supplied, unless the same shall bear a stencil brand as follows: Passed——, 1884, William M. Heagerty, assistant inspector.

The blank space after the word "passed" will contain an abreviation of the name of the month and figures indicating the exact date upon which the brand was placed thereon.

Local, assistant and special inspectors of steam vessels will be held responsible for all life preservers already in use and passed by them, if in any case such life preservers shall be found below the standard requirements.

JAS. A. DUMONT,
Supervising Inspector General.

Approved: Chas. E. Coon, acting secretary.

DETROIT.

Special to the Marine Record

Sale is reported of the little passenger steamer Island Belle to Captain N. S. Whipple and S. A. Whipple his son, of Detroit. The Island Belle was formerly owned by A. F. Barker and others of Clayton, and was run on the St. Lawrence.

The little wrecking schooner Farren H. Williams, (Captain F. P. Williams) has been down for the past three weeks searching for the steamer Forest Queen which was sunk in the ice in Pigeon Bay, 15 years ago. So far, the search has been fruitless. The little craft is fitted out with steam pump, hoister, dredge and diving appratus.

Margaret Hoose has sold the wreck of the schooner L. B. Crocker to Oscal Hill, of Port Huron, receiving $100. The wreck lies on Kelley's Island, and is in a bad condition. It is not known what the intentions of Mr. Hill are in regard to it.

Deputy United States Marshal Cash B. Taylor, at Detroit, Thursday, seized the schooner Sea Bird on the strength of a libel by Mary Imeron, who claims that $9,75 is still due for cooking on the Sea Bird. The marshal also tied up the schooner British Lion for sailors' wages amounting to $83.25.

The hull of the old car ferry Michigan, now lying at Windsor, was bought by J. M. Jones, vessel agent and broker, Monday for some Detroit parties. Her upper works and guards will be torn off and she will be converted into a first class towbarge. She will then be the largest of her craft on the lakes, being 284 feet over all, 42 feet beam and 14 feet in the hold. Her carrying capacity will be 80,000 cubic feet of timber, or 1,500 - 000 feet of lumber. She will be housed in fore and aft and three masts will be placed in her, each ninety feet long. The work of reconstruction will be done this winter.

The owners of the Alberta libeled the Pacific at Amherstburg in return for a like compliment performed against their steamship by reason of damages sustained in the collision between those two boats several weeks ago. Captain Wilson states that the owner of the Alberta took pains to delay him as much as possible, and that it was only by reason of the friendliness of the marshal in charge, and the fact that his part ownership was unknown to them, that he escaped without paying the costs of the seizure. When the marshal had his orders to turn her over to her owners he simply resigned the Pacific to the care of Captain Wilson as one of them. The attorney for the Alberta's owners, not knowing of this fact, telegraphed aboat an hour afterward to Mr. Cheseborough, at Detroit, saying that they would release the vessel if he would pay the costs of the seizure. At that time the Pacific was out and on her way to Lake Erie, and the Canadian lawyer was foiled in his attempt to save a big seizure bill. They will be forced to pay $20 per hour for the tug which was kept on duty for a day watching for the Pacific and other incidentals. Captain Wilson says the whole business was spite work on the part of the Canadian Pacific Railway Company.

The number of casualties which occurred on the northern lakes during the month of September were 122, thirteen less than the preceeding month of August, which are distributed as follows: On Lake Michigan, 37; Lake Huron, 16; Lake Superior and Sault river, 8; Georgian Bay, 3; river St. Clair, 3; Lake St. Clair, 4; Detroit river, 9; Lake Erie and Welland canal, 40; Lake Ontario, 2. The disasters thus enumerated were all of a prominent character, and none have been noted where damages were estimated at less than $100. Of those thus given fifteen were disabled, involving a loss of $20,600; twenty-three were stranded, loss $13,500; twenty-three by heavy weather, loss $10,500; thirty-four by collision, loss $29,100; nine went ashore, loss $14,000; five by fire, loss $19,000; two capsized, loss $9,000; eleven sprung aleak, loss $20,900, making a total of $136,600 for the month, to which must be added loss or damage to cargoes, $13,400; grand total, $150,000, which exceeds the grand total of August $23,400.

The number of deaths during the month, from all causes, was twenty-four, of which twenty-one were accidental, two suicided and one from natural causes.

The densest fog of the season thus far on the rivers was on last Thursday, which lingered late on Friday morning, and from the hour it set in until 10 a. m. the day following there was no movement of craft, and I venture to add that Friday forenoon was the darkest on record for the past five years. The Cleveland boat did not reach her dock until near noon, and the outward bound boat was delayed near Malden for a like number of hours.

The crew of the propeller Atlantic were paid off at this port on Saturday, a custom usual every week. They visited a number of saloons, became elevated and returned to ship again, but were refused and another crew engaged. To this they objected and stood in the way of their going on board. The police were called upon and the rioters were driven from the dock, when the steamer proceeded on her voyage. Such disturbances occur entirely too often at different lake ports, but there seems no way of preventing them.

The body of Fred Gilbert, who was drowned from the schooner Montcalm at the lower end of the city a few days since, was found Saturday, on Mamma Juda Island, and brought to this city for interment.

Considerable annoyance has been experienced, during the recent foggy nights, by vessels of the smaller class anchoring midway of the river channel and liable to be run down by passing steamers. The law in such cases is that if a vessel anchors in an improper place, as in the thoroughfare pass of a river, her owner must abide the consequences of a collision.

The wrecking steamer International has for a few days past been recovering the outfit of the sunken schooner John T. Mott, and brought it to this city. The vessel will doubtless remain where she is and be given up as a total loss.

The tug Kate Moffat arrived here Monday evening from Lake Superior, where she has been engaged in efforts to recover the schooner Bermuda, wrecked at Grand Island some years since, but has been unsuccessful, and returned with the pontoons.

The tug John Martin, with three vessels in tow, while crossing the head of Lake Erie, struck a reef on North Bass Island. The vessels, however, managed to steer clear. The tug was delayed several hours, but managed to get off without aid.

The grain movement at this port is somewhat brisk, but there is no improvement in rates nor is there likely to be from this time until the close.

Captain Patterson arrived here a short time since with his vessel, the Singapore, with a cargo of wood, and claims $100 demurrage, for the reason that the vessel was not unloaded according to agreement, or within a specified time. He has accordingly levied on the cargo to satisfy the claim.

On the night of July 26th some unknown craft ran into the dock at Grosse Isle, Detroit river, and damaged it to the extent o[illegible]veral hundred dollars. It is owned by George W. Alexander, president of the Northwest Manufacturing Company, in this city, who offers a reward of $25 for information of the guilty party.

The barge M. R. Warner, bound down with iron ore, struck on St. Clair flats yesterday, and went hard on. The tug Champion has gone to her assistance.

J. W. H.

MANITOWOC.

The new wrecking tug built by Rand & Burger at Manitowoc was launched on Saturday. She is named the Charles Williams and is owned by the Canfield Tug Line, of Manistee. She is commanded by Captain Charles Gnuewich, an experienced tug captain, and superintendent of the Canfield line. The tug is splendidly modeled and strongly built. Her dimensions are as follows: Length, 97 feet; breadth, 19 feet four inches; depth of hold, 10 feet. Her machinery will be placed in her by Richard Davis, at Milwaukee. Her engine will be 24x26, high pressure. The boiler will be fifteen feet long. The tug will be supplied with two steam pumps and all the latest improved appliances for wrecking purposes. Her cost will be $18,000.

MACKINAW CITY.

The schooner Havana is here with her head sails and centerboard gone, and is leaking some. She lost her center board on Lake Michigan during Friday's gale and her jibs near the Beavers last night. The tug Sampson is expected down from Escanaba tomorrow and will tow her to Detroit. She is ladened with ore.

ESCANABA.

Special to the Marine Record.

The propeller Chauncy Hurlburt, towing the schooners Senator and Annie Vought, left here Wednesday night and encountered a heavy gale off Fox Island. The Vought lost her main topmast and the Senator commenced leaking so badly that they were forced to return to this port. The Senator has thirty-eight inches of water and leaking slowly. The schooner Senator was towed into the shipdock on 3d inst., and a ten inch Worthington pump stationed here put on board. The Senator lies decks to, and has been making about fourteen inches of water an hour. The captain thinks he will be able to free her with the pump now in use.

WALLACEBURG.

Friday night the Canadian tug Jerome was burned on the Lydenham river, below Wallaceburg, Ont. She was towing a raft to Marine City at the time. This is the tug that had the schooner Victor in tow when the latter was sunk by S. J. Macy, and some litigation will probably be ended by her destruction. She was valued at $6,000. She was built by D. Jerome, of Montreal, in 1874, for a yacht. At that time she was considered a very fine model and a handsome craft. After being used as a yacht for a number of years, she was converted into an excursion boat, and the latter being bought by J. A. Smith and others of Wallaceburg, was used for towing purposes. The Jerome was libeled, but for two years evaded the authorities by remaining in Canadian water. Last spring she touched at Alpena and was tied up there by the marshal. Bonds were given and she went on towing rafts until she was burned.

MARQUETTE.

The small schooner Grace Ely ran ashore at Huron river, about forty miles from here, on the 1st. She has on board a cargo of dynamite. She is owned by John Cone, of this city, and valued at $1,000; uninsured. The dynamite is owned by a slate company, and is valued at $5,000. The Grace Ely meas ures eleven tons and was built at Marquette in 1880.

The schooner Monterey took on 500 tons of ore in fifty-five minutes, the quickest time on record.

SAULT STE. MARIE.

Following is a comparative report of the business done by St. Mary's falls canal for the month of September 1884, which shows a large increase in all the figures over 1883, excepting coal, which shows a decrease of 7,807 tons.

	1884.	1883.
Registered tonnage	504,720	311,231
Freight, tons	455,922	349,788
Passengers	6,513	5,962
Coal, tons	84,490	92,297
Flour, bbls.	175,257	142,267
Grain, bushels	1,796,649	838,917
Iron ore, tons	208,479	142,818
Lumber, M	27,883	18,314
Number of passages	946	663

The registered tonnage is in excess of any previous month 15,175 tons.

MONTAGUE.

Special to the Marine Record.

One of the new patent Pearsons' propeller wheels, manufactured by Wilson & Hendrie, of this city, has been placed on the new steel steamship Albany, built by the Detroit Drydock Company, and also on the new steamship Waldo Avery, built by Wheeler & Crane, at West Bay City. The merits of the wheel will be duly demonstrated on these steamers. The one recently placed on the steambarge R. C. Brittain has been reported upon by the captain, who says he has tried several other wheels, and that he can get more speed out of the boat with fifteen pounds less steam than he ever could with any other wheel. He also says it is the best backing wheel ever put on a steamboat.

T.

DULUTH.

Special to the Marine Record.

The Lake Superior News says: L. A Dauby's yacht, the Lewie, is the largest boat of the class ever launched at the head of the lake. She is 36 feet keel, 40 feet over all, 11 feet beam and 5 feet deep. She is to be entirely decked over, will have nickle trimmings, including a hand rail, and will cost about $700. Mr. Dauby thinks that Lake Superior can't get up a storm that will send her to port. He expects to try her sailing qualities next week.

At one time Monday afternoon there were three vessels lying abreast at elevator B, one loading and two waiting their turn; a fourth was just in their rear waiting; the Dows was at the dock near by, loading and waiting for a tug; two were loading at elevator A, and three more were coming in through the canal headed for B. In addition to these several boats were loading flour and four or five more unloading coal and merchandise. It did not look just then as if the shipping interest was declining.

Taking our suggestion that a drydock is wanted on Lake Superior for the accommodation of the largest vessels, a Sault Ste. Marie paper says its town is the proper place for a drydock. Which position is all right if it can be maintained.—Portage Lake Mining Gazette. The Sault is a good enough place, but Duluth, the head of navigation, and the principal shipping port of the lake, is a better. The small drydock which we have here now and which is doing work for the whole western end of the lake, shows how profitable a large one would soon be.—*Lake Superior News.*

J. B. Sweatt, of Marquette, has secured the contract for building the life saving station at the Lake Superior entrance to the Portage lake ship canal.

The steambarge Chamberlain, which was reported going to pieces at Port Arthur, arrived with the schooner John Martin on Sunday. The Martin missed the entrance and went on the beach but was released Monday evening, not being damaged seriously. The Chamberlain, was under full headway and before she could check down, ran through the Northern Pacific bridge, completely wrecking it. The barge is uninjured.

James T. Rose is agent of the John Martin here. Two steambarges and two tugs were employed in releasing her.

The Hera'd says the Hope was in from Nemadji river yesterday. When she was going back she grounded about three hundred yards from the St. Paul & Pacific coal company's dock and considerable difficulty was experienced in getting her off.

WIARTON.

The schooner Arabia, which left Chicago on the 1st with 20,000 bushels of corn, foundered on the morning of the 5th. Both vessel and cargo are a total loss, as she lies in 100 feet of water. The crew are safe, but so completely exhausted that full details of the disaster cannot be obtained at present. The vessel was bound for Midland. While off the Ducks on Lake Huron she encountered a heavy gale, during which her seams opened and she commenced to leak. The crew pumped unceasingly throughout Saturday, and a signal of distress was hoisted in hopes of attracting attention from some passing vessel that could render assistance. But the gale increased in violence, and the crippled vessel made bad weather of it. Captain Henry Doville, her master, did everything in his power to save the vessel by running her on the beach, but his efforts were unsuccessful, as after pumping her for hours the crew became exhausted. Finding the water rapidly gaining on the pumps the Captain decided to abandon the sinking ship to her fate. The yawl was lowered and the men pulled a short distance off when the vessel gave a plunge and disappeared with a roar. This occurred at 3 o'clock near Echo Island, just as the vessel was entering Georgian Bay. After leaving the vessel the crew were nearly swamped by the heavy seas, but the wind died away and they were picked up by the tug Clark, which brought them to this port. The Arabia was a three-masted schooner, registered 370 tons. She was built at Kingston in 1852 by Thurston. She was rebuilt in 1874, and repaired in 1882. She was a Canadian bottom, and was owned by William Nickle & Co., of Montreal, and was rated at $7,000.

The Arabia was insured for $3,000 in the Buffalo and $1,000 in the Boston Marine. The cargo of corn was insured for $9,739 in the Phoenix, and the freight list for $250 in same company. The cargo was shipped by Coon & Knowles, of Chicago, who suffer a loss of $2,000 by not having the corn delivered. They paid 43 cents for the grain, and it would have brought 10 cents higher than that figure if laid down at Midland.

$25 Reward.

I will give the above reward for information of the vessel that run into my dock at Grosse Isle, Detroit river, on the night of July 26, 1884.

GEORGE W. ALEXANDER.

Detroit, Mich., October 7.

PILOT RULES FOR THE LAKE AND SEABOARD.

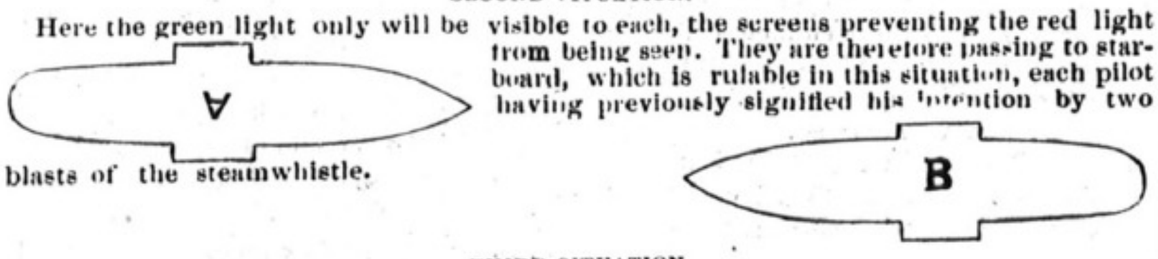
The following diagrams are intended to illustrate the working of the foregoing system of colored lights, and are to be used by pilots in connection with the rules, as sailing directions on meeting or nearing other steamers:

FIRST SITUATION.

Here the two colored lights, visible to each, will indicate their direct approach ("head and head") toward each other. In this situation it is a standing rule that both shall put their helms to port and pass to the right, each having previously given one blast of the steam whistle.

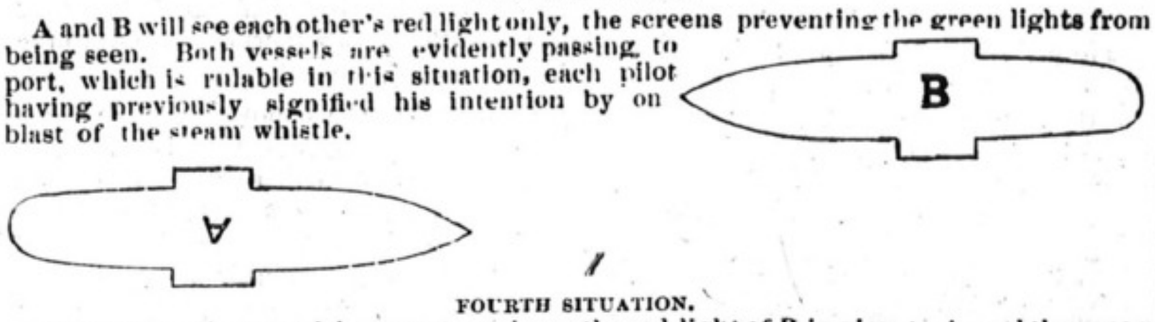
SECOND SITUATION.

Here the green light only will be visible to each, the screens preventing the red light from being seen. They are therefore passing to starboard, which is rulable in this situation, each pilot having previously signified his intention by two blasts of the steamwhistle.



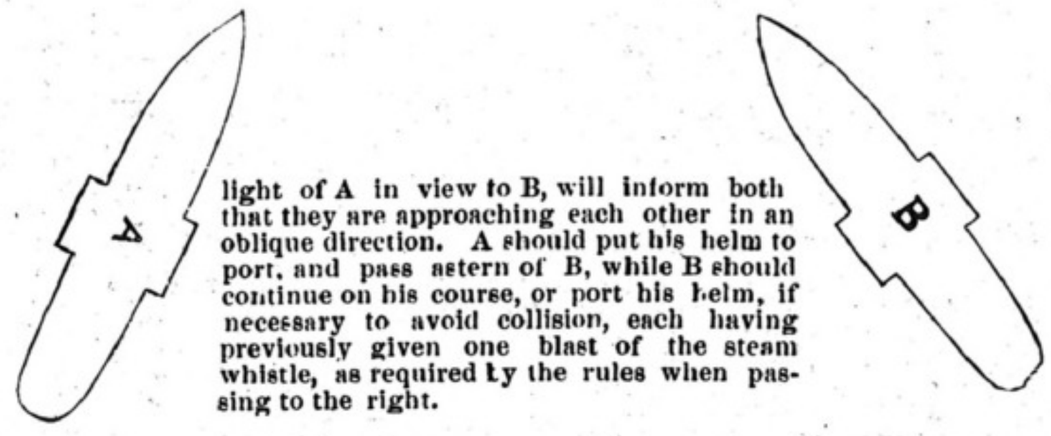
THIRD SITUATION.

A and B will see each other's red light only, the screens preventing the green lights from being seen. Both vessels are evidently passing to port, which is rulable in this situation, each pilot having previously signified his intention by on blast of the steam whistle.



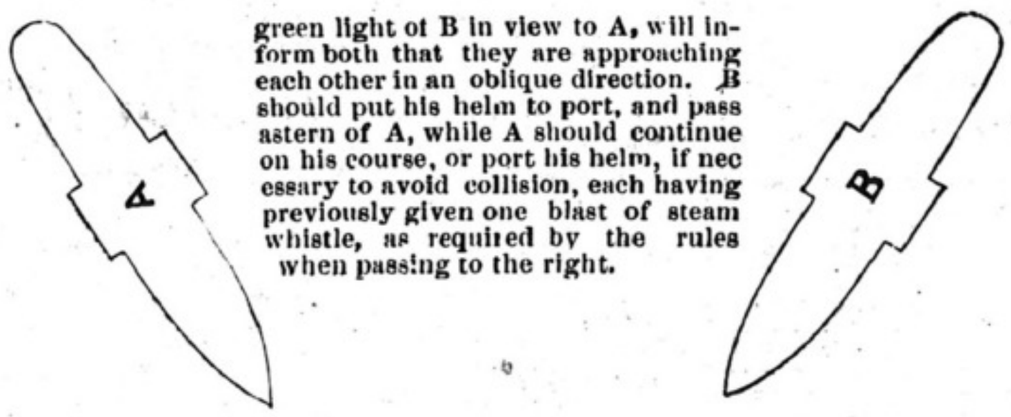
FOURTH SITUATION.

This is a situation requiring great caution; the red light of B in view to A, and the green light of A in view to B, will inform both that they are approaching each other in an oblique direction. A should put his helm to port, and pass astern of B, while B should continue on his course, or port his helm, if necessary to avoid collision, each having previously given one blast of the steam whistle, as required by the rules when passing to the right.



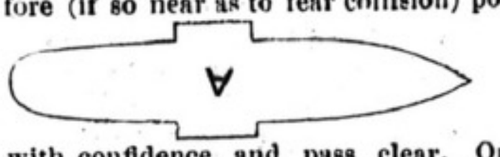
FIFTH SITUATION.

This is a situation requiring great caution; the red light of A in view to B, and the green light of B in view to A, will inform both that they are approaching each other in an oblique direction. B should put his helm to port, and pass astern of A, while A should continue on his course, or port his helm, if necessary to avoid collision, each having previously given one blast of steam whistle, as required by the rules when passing to the right.

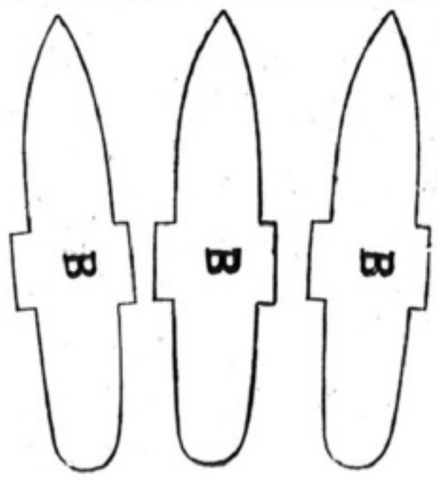


SIXTH SITUATION.

In this situation the steamer A will only see the red light of the steamer B in whichever of the three positions the latter may happen to be, because the green light will be hid from view; A will be assured that the port side of B is toward him, and that the latter is therefore crossing the bows of A in some direction to port; A will therefore (if so near as to fear collision) port his helm

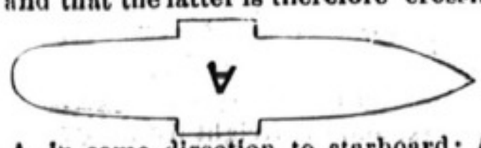


with confidence, and pass clear. On the other hand, the steamer B in either of thethree positions, will see both the red and green lights of A, by which the former will know that a steamer is approaching directly toward him; B will actaccordingly, and keep away if necessary.

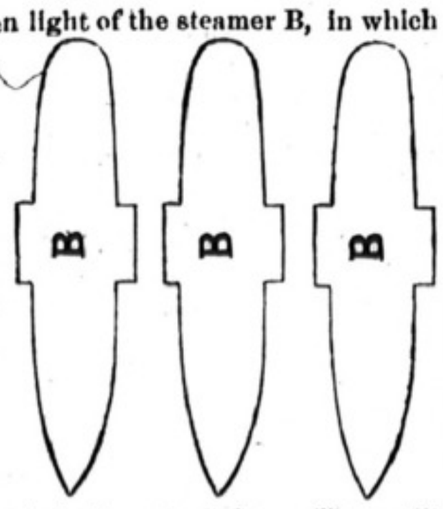


SEVENTH SITUATION.

In this situation the steamer A will only see the green light of the steamer B, in whichever of the three positions the latter may happen to be, because the red light will be hid from view; A will be assured that the starboard side of B is towards him, and that the latter is therefore crossing the bows of



A in some direction to starboard; A will therefore (if so near as to fear collision) starboard his helm with confidence and pass clear. On the other hand, the steamer B, in either of the three positions, will see both the red and green lights of A, by which the former will know that a steamer is approaching directly toward him; B will act accordingly, and keep away if necessary.



The manner of fixing the colored light should be particularly attended to. They will require to be fitted each with a screen, of wood or canvas, on the inboard side, and close to the light, in order to prevent both being seen at the same moment from any direction but that of right ahead to two points abaft the beam.

This is important, for without the screens any plan of bow lights would be ineffectual as a means of indicating the direction of steering. This will be readily understood by a reference to the proceeding illustrations, where it will appear evident that in any situation in which two vessels may approach each other in the dark the colored light will instantly indicate to both the relative courses of each; that is, each will know where the other is approaching directly, or crossing the bows either to starboard or port.

This intimation, with the signals by whistle as provided, is all that is required to enable vessels to pass each other in the darkest night with almost equal safety as in broad day. If at anchor, all vessels, without distinction, must exhibit a bright white light at least twenty feet above the surface of the water.

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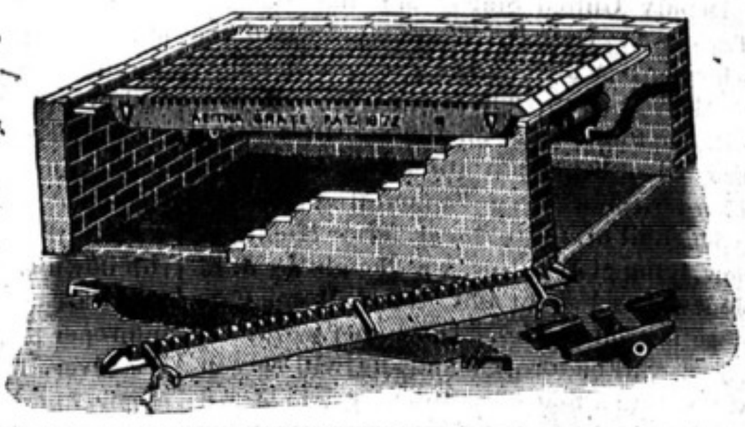

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SECOND HAND MARINE BOILER four feet wide, 6 1-2 feet long, 5 feet high, sixty-four 2 1-2 inch tubes 60 inches long, cast iron breechng, good as new.

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Her length over all is 51 feet, breadth 13 feet and depth of hold 6 feet; draws 5½ feet of water; measures 9 24-100 (new) tons and 18 24-100 old. Built in 1880 and rebuilt this spring, new deck frames and cabin, and machinery thoroughly overhauled. Engine is 14x14, boiler 8½ feet long and 4 8-12 in diameter and allowed 90 pounds of steam. Warranted in No. 1 condition and subject to inspection. Price, $3,300 cash.

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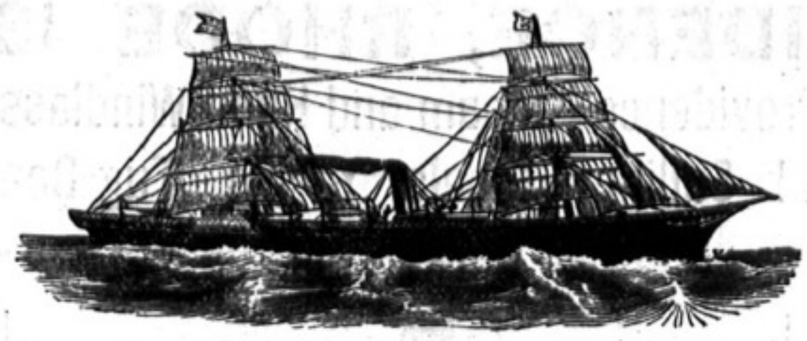

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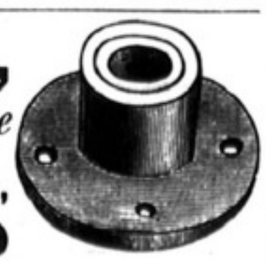

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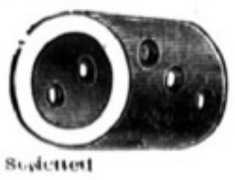

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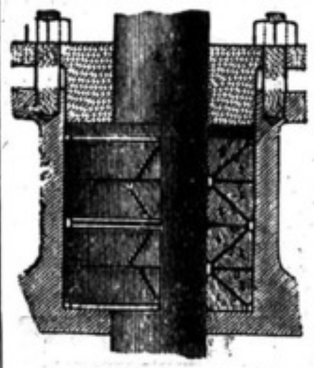

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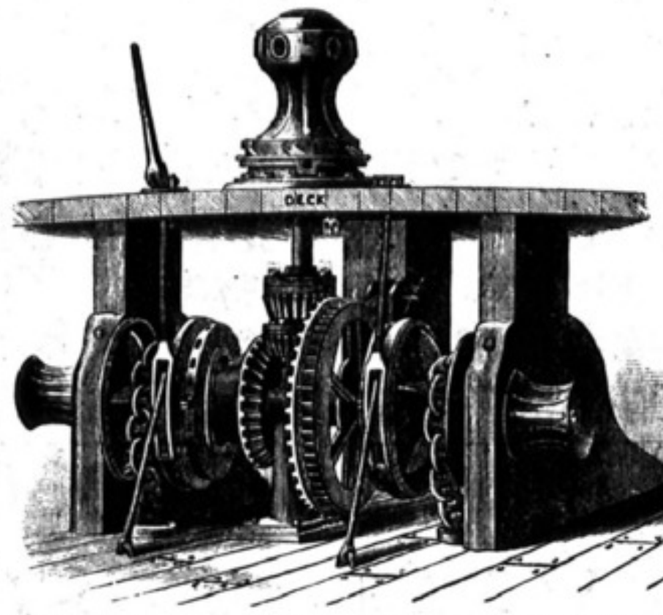
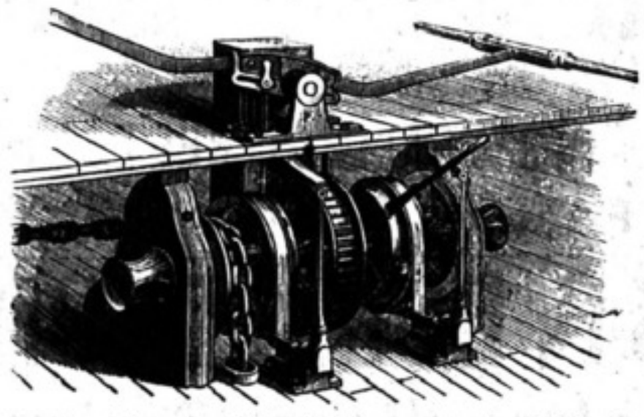


The Providence Patent Capstan Windlass.

The Providence Patent Steam Capstan.

The Providence Patent Power Capstan.



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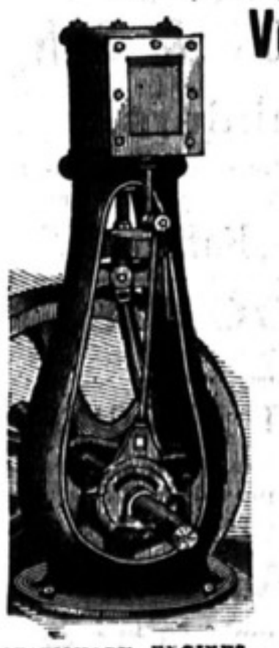

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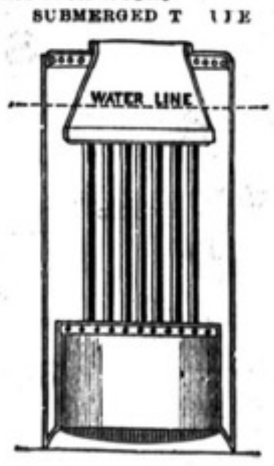

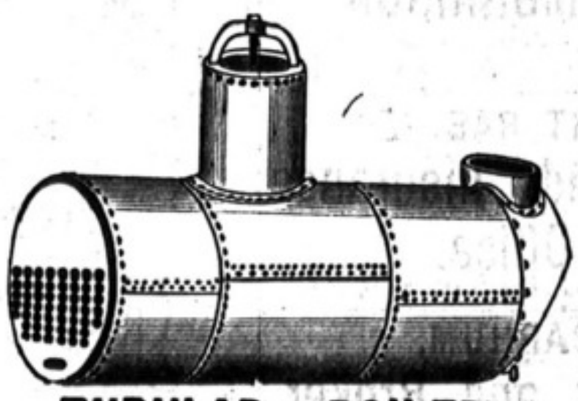

TUBULAR BOILER.

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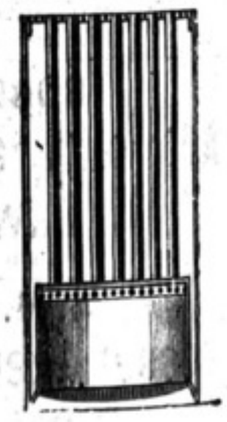

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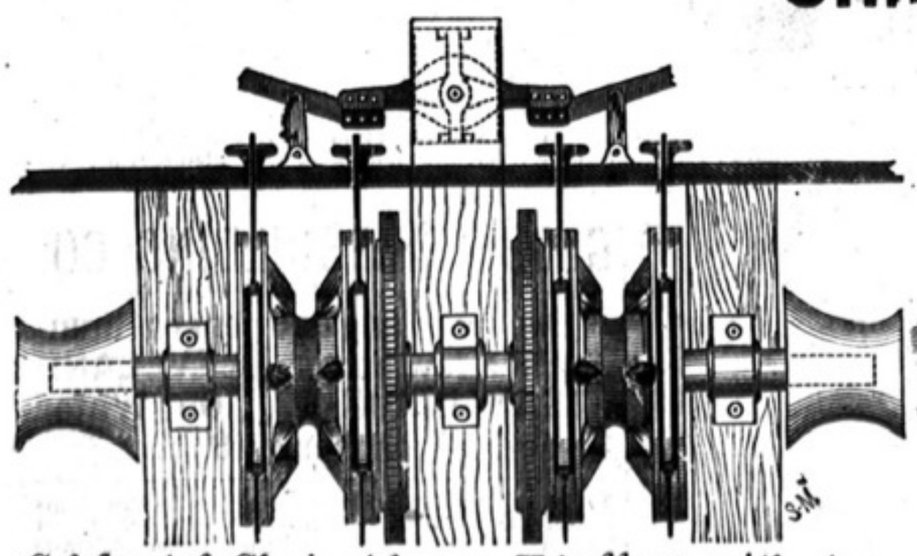
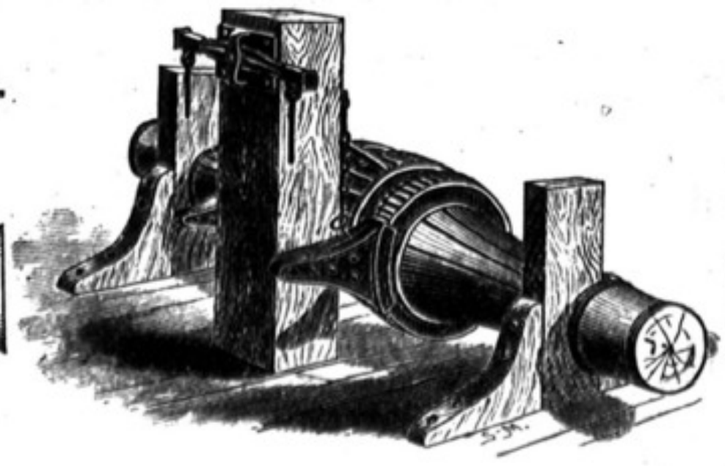
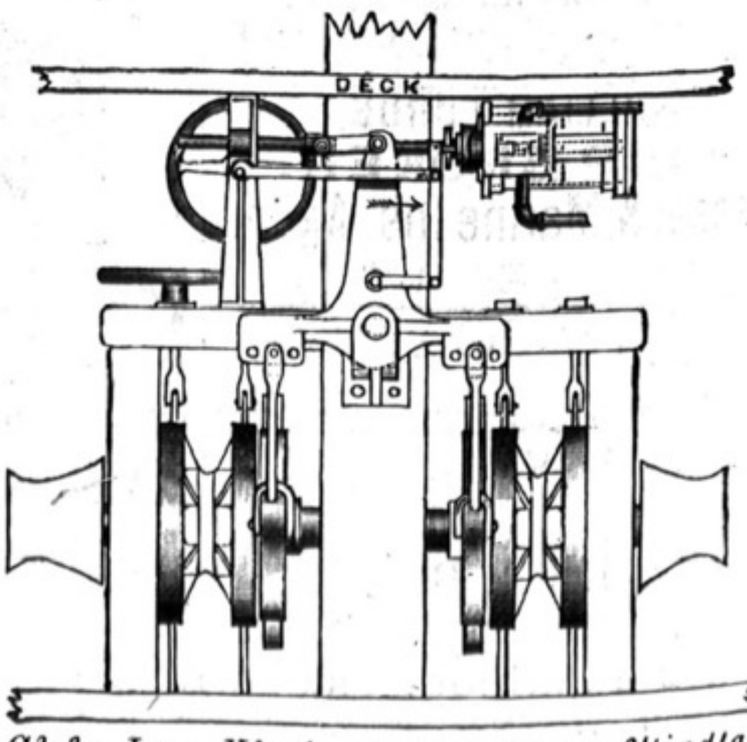


Celebrated Chain Sheave Windlass, with Amazeen Beam.



The Common Patent Windlass.



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